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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,532	08/01/2001	Takayuki Yamamoto	Q65685	3507

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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

ZALUKAEVA, TATYANA

ART UNIT PAPER NUMBER

1713

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/918,532

Applicant(s)

YAMAMOTO ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on September 22, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,6,7,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2003 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 2, 5, 7, 11 and 12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The introduction of "molecular weight" instead of previously disclosed "weight average molecular weight" is not supported by original specification before it was amended. The instant specification clearly provides for the weight average molecular weight (see pages 4 and 10 of the instant specification). The instant specification NEVER mentions or provides any guidance for the term "molecular weight" probably for the reasons discussed below in "response to arguments" section. This is a new matter situation.

The amendment filed February 4, 2003 stand objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "molecular weight" versus "weight average molecular weight" as initially presented.

Applicant is required to cancel the new matter in the reply to this Office Action.

4. Claims 1, 2, 5, 7, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The molecular weight limitations of 100,000 or less set forth in claims 1, 2, 5, 7, 11 and 12 fails to identify whether this numerical value represents a weight average or a number average molecular weight or viscosity average determination. Therefore, claims 1, 2, 5, 7, 11 and 12 do not set out and circumscribe a particular area with a reasonable degree of precision and particularity.

Before the art rejection is discussed, it is noted that the present amendment introduces limitation "comprising 10% by weight or less ... of components..." *(emphasis added-T.Z.)*. This limitation also reads on the total absence of such components or 0% of such components.

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5. Claims 1, 2, 6, 7, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bamba et al (U.S. 6,224,938)

Bamba: discloses a method for producing pressure sensitive adhesive sheet or tape comprising subjecting a mixture of monomers to be polymerized to polymerization in an inert fluid in a supercritical state (abstract). Examples of monomers to be polymerized include acrylic acid monomers, listed in col. 2, lines 46-51 and others listed in col. 2, lines 53-65. Polymerization is performed in the presence of conventional free radical initiators (col. 3, lines 5-11, one of preferable supercritical fluid is named as carbon dioxide in col. 3, line 17. Polymerization temperature is from 20-100°C. Continuous process of polymerization is described in col. 4, lines 35-50. Furthermore, according to the method of the invention, in ejecting the pressure-sensitive adhesive to a low-pressure region, **the residual monomer and low molecular weight components**, which have a possibility to lower the pressure-sensitive adhesive properties, can be evaporated off simultaneously with the evaporation of the inert fluid. (paragraph bridging col. 4 and 5).

The disclosure of Bamba differs from the instant claims by different polymerization time and by not disclosing the particularities of the apparatuses for polymerization. With regard to apparatuses Bamba clearly suggests the continuous process in the extrusion apparatus, wherein the raw materials, such as monomer, initiator and inert fluid (supercritical carbon dioxide) are being pressurized and continuously supplied to the extrusion apparatus (col. 4, lines 35-40). This is similar to mixing the monomer solution and carbon dioxide in the joint mixer as per instant claims.

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Furthermore, it is noted here that it is noted here that the claimed invention calls for the process claims, wherein the steps of the process are met by the applied prior art, and the structural limitations of apparatus do not present manipulative difference between the claimed process steps and the prior art process. Therefore, the recitation of specific structural limitations of apparatus for performing such steps does not serve to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963)

With regard to the difference in the residence time, it is well known in the art time and temperature are those parameters, which are conventionally adjusted to achieve the optimum of molecular weight (reduce chain transfer reactions), polydispersity, residual monomer content. Bamba, for example, motivates a person skilled in the art take measures to reduce residual monomer content, such as ejecting the pressure-sensitive adhesive to a low-pressure region, to evaporate the residual monomer and low molecular weight components, which have a possibility to lower the pressure-sensitive adhesive properties.

Therefore, a person skilled in the art would have found it obvious to adjust the reaction time, (which is a result effective parameter, as explained above), depending on the desired balance of polydispersity and molecular weight of resulting polymers and thus to arrive at the instant claims.

Discovery of optimum value of a result effective variable in known process is within the skills of one with ordinary skill in the art and would have been obvious, *In re Boesch and Slaney* 205 USPQ 215 (CCPA 1980).

### ***Response to Arguments***

6. Applicant's arguments filed September 22, 2003 have been fully considered but they are not persuasive. The issue of molecular weight is addressed above in 35 USC 112 first and second paragraph rejections. During telephone conversation with Applicants representative, Mr. Scala noted that the new limitation of "molecular weight" instead of initially recited "weight average molecular weight" is derived from a priority Japanese Application, and that allegedly the error was made during translation. Even if this is the case (although the certified translation has never been submitted), there is no mentioning in initial filing that the Japanese Application is incorporated by reference in its entirety in the present Application. Therefore, the new limitation still introduces the new matter. The proscription against the introduction of new matter in a patent application (35 U.S.C. 132 and 251) serves to prevent an applicant from adding information that goes beyond the subject matter originally filed. See *In re Rasmussen*, 650 F.2d 1212, 1214, 211 USPQ 323, 326 (CCPA 1981). Where a foreign priority document under 35 U.S.C. 119 is of record in the U.S. application file, applicant may **not rely on the disclosure of that document to support** correction of an error in the pending U.S. application. **Ex parte Bondiou**, 132 USPQ 356 (Bd. App. 1961). This prohibition applies regardless of the language of the foreign priority documents because a claim for priority is simply a claim for the benefit of an earlier filing date for subject matter that is common to two or more applications, and does not serve to incorporate

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the content of the priority document in the application in which the claim for priority is made. This prohibition does not apply where the U.S. application explicitly incorporates the foreign priority document by reference. See MPEP 2163.06

With regard to Applicants arguments that the term "molecular weight" per se exists and is recognized in the art, it is noted that the examples referred to by Applicants are not taken from the patent wherein the protection is sought, but from the non-patent literature, wherein the recitation of "molecular weight" is shown for a specific purpose (Billmayer) to say that there are NO molecules having molecular weights larger than recited value. Those skilled in the art are well aware that the polymer is a mixture of molecules having different molecular weights, and in practice it is almost impossible that all molecules have the same weight, therefore, the initial and scientifically correct recitation in the instant specification was "weight average molecular weight". Since Applicants seek protection for the specific limit of molecular weight, it is imperative that the type of molecular weight be identified, since it is well known that molecular weight of a particular polymer yield significantly different "number average", and "weight average" and/or viscosity average numerical values. This is confirmed very well by the references presented by Applicants if read in their entirety. (Stevens, page 412, lines 1-4, and everything starting from third paragraph through page 42)., and Billmayer especially see "hypothetical polymers" on page 19.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Tatyana Zalukaeva  
Primary Examiner  
Art Unit 1713

November 17, 2003

**Tatyana Zalukaeva, Ph.D.**  
**Primary Examiner**  
**Art Unit 1713**

A handwritten signature in black ink, appearing to read 'Tatyana Zalukaeva', with a long, sweeping horizontal line extending to the right.